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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
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Uwe Sydon

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STAAS & HALSEY LLP

SUITE 700

1201 NEW YORK AVENUE, N.W.

WASHINGTON, DC 20005

EXAMINER

NGUYEN, STEVEN H D

ART UNIT

PAPER NUMBER

2473

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PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

| | | | |
|------------------------------|------------------------|---------------------|--|
| Office Action Summary | Application No. | Applicant(s) | |
| | 09/754,905 | SYDON ET AL. | |
| | Examiner | Art Unit | |
| | Steven HD Nguyen | 2473 | |

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 12/03/2010.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-3 and 6-34 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-3 and 6-34 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
 Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Continued Examination Under 37 CFR 1.114

1. A request for continued examination under 37 CFR 1.114 was filed in this application after a decision by the Board of Patent Appeals and Interferences, but before the filing of a Notice of Appeal to the Court of Appeals for the Federal Circuit or the commencement of a civil action. Since this application is eligible for continued examination under 37 CFR 1.114 and the fee set forth in 37 CFR 1.17(e) has been timely paid, the appeal has been withdrawn pursuant to 37 CFR 1.114 and prosecution in this application has been reopened pursuant to 37 CFR 1.114. Applicant's submission filed on 12/03/2010 has been entered.

Claim Rejections - 35 USC § 103

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. Claims 1-3, 6-27 and 30-34 are rejected under 35 U.S.C. 103(a) as being unpatentable over Miyake (USP 5903618) in view of Morvan (USP 6574452).

As claims 1-3, 9-12 and 32, Miyake discloses (Figs 1-22 and col. 1, lines 5 to col. 13, lines 5) a cordless communication system, comprising a central unit (Fig 1, Ref 10); and at least two remote units capable of radio frequency communication with said central unit (Fig 1, Ref 10 and 18); wherein each of said at least two remote units is capable of communication with another of said at least two remote units via a radio

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frequency connection relayed through said central unit (Col 2, lines 4-10); and wherein a first of said at least two remote units is further capable of communication with a second of said at least two remote units via a dedicated radio frequency connection assigned by said central unit for enabling direct communication between said first remote unit and said second remote unit (Figs 10-11, 15-16 and col. 9, lines 19-42 and col. 2, lines 4-67) and each of said remote units synchronize to said central unit during communication with the central unit (Col. 2, lines 61-67). However, Miyake fails to disclose the second remote unit synchronizing to the first remote unit during communication with the first remote unit via the dedicated radio channel. In the same field of endeavor, Morvan discloses a method and system comprising the terminals capable of performing a direct mode "confidential mode" or trunk mode "normal mode via a base station" by allowing the terminals to setup a direct mode by using the normal mode, after setting up the direct mode, one of the terminal switches to base station mode and synchronize with the other terminal via its traffic channel (See col. 41, lines 5-39).

Since, the clock of terminals which is synchronized with a clock of base station will be drift during a cycle of broadcasting a sync message from the base station. Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention was made to apply a method and system for synchronizing the terminals after setup a direct mode by using its old clock as disclosed by Morvan into Miyake's system. The motivation would have been to prevent data loss during the communication between and improve the throughput of the base station.

As claim 13, Miyake discloses a first of said at least two remote units is capable of providing a request to said central unit for a direct connection with a second of said at least two remote units (Fig 10, Ref 12).

As claim 14, Miyake discloses upon receiving a request from said first remote unit, said central unit assigns a dedicated communication channel for enabling direct communication between said first and second remote units, said second remote unit synchronizing to said first remote unit (Figs 10-11, 15-16 and col. 9, lines 19-42 and col. 2, lines 4-67).

As claims 6, 15, Miyake discloses said radio communication comprises time division duplex connections utilizing a time division multiple access (TDMA) scheme (col. 8, lines 1-21).

As claims 7, 16, 24, 26, 30 and 33, Miyake discloses said radio communication comprises a frequency hopping spread spectrum (FHSS) scheme and said central unit assigns the dedicated communication channel by assigning a specific hop sequence to selected ones of said at least two remote units being orthogonal (col. 8, lines 1-21 and col. 9, lines 19-42).

As claims 8, 17, 25, 27, 31 and 34, Miyake discloses said radio frequency communication comprises direct sequence spread spectrum (DSSS) scheme and said central unit assigns said dedicated communication channel by assigning a specific spreading code to selected ones of said at least two remote units (Col. 4, lines 47 to col. 5, lines 8 and col. 9, lines 19-42).

As claim 18, Miyake discloses said central unit provides an interface for interfacing the communication system with a network (Fig 1).

As claim 19, Miyake discloses the network comprises at least one of a public switched telephone network (PSTN), an integrated services digital network (ISDN), the Internet, and an Intranet (Col. 4, lines 30-46).

As claim 20, Miyake discloses (Figs 1-22 and col. 1, lines 5 to col. 13, lines 5) a method for providing direct radio frequency communication between remote units in a cordless communication system, comprising providing a request to a central unit for direct radio frequency communication between a first remote unit and a second remote unit (Figs 10 and 15, Ref 12); and initiating a direct connection between the first remote unit and the second remote unit via a dedicated communication channel assigned to the first remote unit and the second remote unit by the central unit (Figs 10-11, 15-16 and col. 9, lines 19-42 and col. 2, lines 4-67). However, Miyake fails to disclose synchronizing the second remote unit to the first remote unit during direct communication between the first remote unit and the second remote unit via the dedicated communication channel. In the same field of endeavor, Morvan discloses a method and system comprising the terminals capable of performing a direct mode "confidential mode" or trunk mode "normal mode via a base station" by allowing the terminals to setup a direct mode by using the normal mode, after setting up the direct mode, one of the terminal switches to base station mode and synchronize with the other terminal (See col. 41, lines 5-39).

Since, the clock of terminals which is synchronized with a clock of base station will be drift during a cycle of broadcasting a sync message from the base station. Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention was made to apply a method and system for synchronizing the terminals after setup a direct mode by using its old clock as disclosed by Morvan into Miyake's system. The motivation would have been to prevent data loss during the communication between and improve the throughput of the base station.

As claim 21, Miyake discloses further comprising determining that communication between the first remote unit and the second remote unit has ended; and terminating the direct connection between the first remote unit and the second remote unit (Figs 11 and 15, Ref 54, 56, 58, 60 and 62, col. 9, lines 19-42).

As claim 22, Miyake discloses wherein determining that communication between the first remote unit and the second remote unit has ended comprises providing an indication to the central unit that communication between the first remote unit and the second remote unit has ended (Figs 11 and 15, Ref 54, 56, 58, 60 and 62, col. 9, lines 19-42).

As claim 23, Miyake discloses initiating a direct connection between the first remote unit and the second remote unit comprises assigning the dedicated communication channel (col. 9, lines 19-42).

4. Claims 1-3, 6-27 and 30-34 are rejected under 35 U.S.C. 103(a) as being unpatentable over Miyake (USP 5903618) in view of Kojima (USP 5699409).

As claims 1-3, 9-12 and 32, Miyake discloses (Figs 1-22 and col. 1, lines 5 to col. 13, lines 5) a cordless communication system, comprising a central unit (Fig 1, Ref 10); and at least two remote units capable of radio frequency communication with said central unit (Fig 1, Ref 10 and 18); wherein each of said at least two remote units is capable of communication with another of said at least two remote units via a radio frequency connection relayed through said central unit (Col 2, lines 4-10); and wherein a first of said at least two remote units is further capable of communication with a second of said at least two remote units via a dedicated radio frequency connection assigned by said central unit for enabling direct communication between said first remote unit and said second remote unit (Figs 10-11, 15-16 and col. 9, lines 19-42 and col. 2, lines 4-67) and each of said remote units synchronize to said central unit during communication with the central unit (Col. 2, lines 61-67). However, Miyake fails to disclose the second remote unit synchronizing to the first remote unit during communication with the first remote unit via the dedicated radio channel. In the same field of endeavor, Morvan discloses a method and system comprising the terminals capable of performing a direct mode "confidential mode" or trunk mode "normal mode via a base station" by allowing the terminals to setup a direct mode by using the normal mode, after setting up the direct mode, one of the terminal switches to base station mode and synchronize with the other terminal via its traffic channel (See col. 41, lines 5-39).

Since, the clock of terminals which is synchronized with a clock of base station will be drift during a cycle of broadcasting a sync message from the base station.

Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention was made to apply a method and system for synchronizing the terminals after setup a direct mode by using its old clock as disclosed by Morvan into Miyake's system. The motivation would have been to prevent data loss during the communication between and improve the throughput of the base station.

As claim 13, Miyake discloses a first of said at least two remote units is capable of providing a request to said central unit for a direct connection with a second of said at least two remote units (Fig 10, Ref 12).

As claim 14, Miyake discloses upon receiving a request from said first remote unit, said central unit assigns a dedicated communication channel for enabling direct communication between said first and second remote units, said second remote unit synchronizing to said first remote unit (Figs 10-11, 15-16 and col. 9, lines 19-42 and col. 2, lines 4-67).

As claims 6, 15, Miyake discloses said radio communication comprises time division duplex connections utilizing a time division multiple access (TDMA) scheme (col. 8, lines 1-21).

As claims 7, 16, 24, 26, 30 and 33, Miyake discloses said radio communication comprises a frequency hopping spread spectrum (FHSS) scheme and said central unit assigns the dedicated communication channel by assigning a specific hop sequence to selected ones of said at least two remote units being orthogonal (col. 8, lines 1-21 and col. 9, lines 19-42).

As claims 8, 17, 25, 27, 31 and 34, Miyake discloses said radio frequency communication comprises direct sequence spread spectrum (DSSS) scheme and said central unit assigns said dedicated communication channel by assigning a specific spreading code to selected ones of said at least two remote units (Col. 4, lines 47 to col. 5, lines 8 and col. 9, lines 19-42).

As claim 18, Miyake discloses said central unit provides an interface for interfacing the communication system with a network (Fig 1).

As claim 19, Miyake discloses the network comprises at least one of a public switched telephone network (PSTN), an integrated services digital network (ISDN), the Internet, and an Intranet (Col. 4, lines 30-46).

As claim 20, Miyake discloses (Figs 1-22 and col. 1, lines 5 to col. 13, lines 5) a method for providing direct radio frequency communication between remote units in a cordless communication system, comprising providing a request to a central unit for direct radio frequency communication between a first remote unit and a second remote unit (Figs 10 and 15, Ref 12); and initiating a direct connection between the first remote unit and the second remote unit via a dedicated communication channel assigned to the first remote unit and the second remote unit by the central unit (Figs 10-11, 15-16 and col. 9, lines 19-42 and col. 2, lines 4-67). However, Miyake fails to disclose synchronizing the second remote unit to the first remote unit during direct communication between the first remote unit and the second remote unit via the dedicated communication channel. In the same field of endeavor, Kojima discloses a method and system comprising the terminals capable of performing a direct mode by

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allowing the terminals to setup a direct mode by using the normal mode, after setting up the direct mode, one of the terminal switches to base station mode and synchronize with the other terminal (Fig 5, Unit A and Unit B establish a direct mode via master unit, they performs a synchronization with each other via assigned communication channel, Col. 6:21 to col. 7:15).

Since, the clock of terminals which is synchronized with a clock of base station will be drift during a cycle of broadcasting a sync message from the base station. Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention was made to apply a method and system for synchronizing the terminals after setup a direct mode as disclosed by Kojima into Miyake's system. The motivation would have been to prevent data loss during the communication between and improve the throughput of the base station.

As claim 21, Miyake discloses further comprising determining that communication between the first remote unit and the second remote unit has ended; and terminating the direct connection between the first remote unit and the second remote unit (Figs 11 and 15, Ref 54, 56, 58, 60 and 62, col. 9, lines 19-42).

As claim 22, Miyake discloses wherein determining that communication between the first remote unit and the second remote unit has ended comprises providing an indication to the central unit that communication between the first remote unit and the second remote unit has ended (Figs 11 and 15, Ref 54, 56, 58, 60 and 62, col. 9, lines 19-42).

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As claim 23, Miyake discloses initiating a direct connection between the first remote unit and the second remote unit comprises assigning the dedicated communication channel (col. 9, lines 19-42).

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Steven HD Nguyen whose telephone number is (571) 272-3159. The examiner can normally be reached on 8:30-5:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Yao Kwang can be reached on (571) 272-3182. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Wednesday, 16 February, 2011

/Steven HD Nguyen/

Primary Examiner, Art Unit 2473